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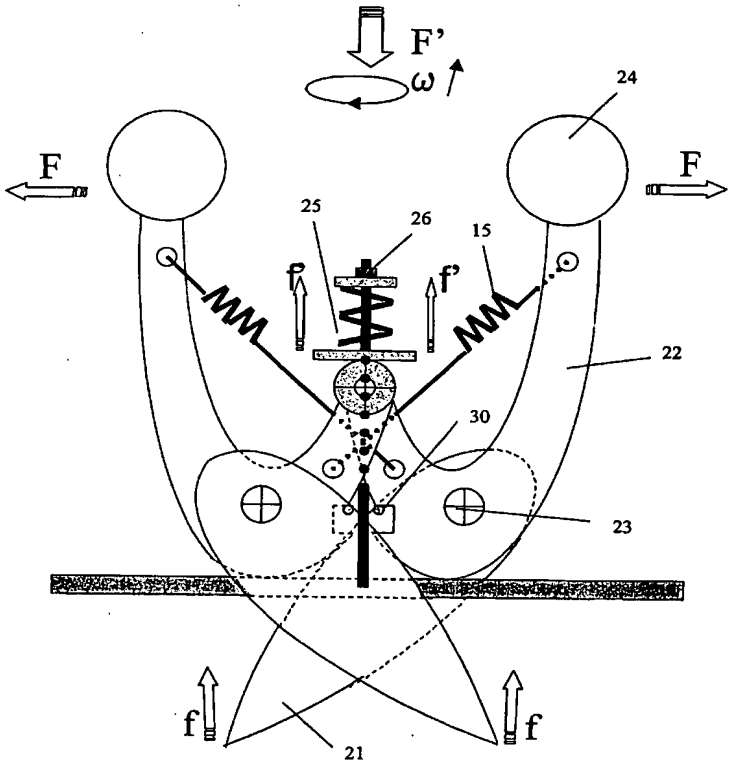
[Suite sur la page suivante]

(54) Title: WIND GENERATOR OF THE TYPE WITH AUTOMATIC POWER REGULATION

(54) Titre : EOLIENNE DE TYPE A AUTOREGULATION DE PUISSANCE



(57) Abstract: The invention relates to a wind generator of the type with automatic power regulation, comprising at least one propeller having at least two blades (21), whereby the efficiency of one propeller varies inversely to a variation in the wind energy, from a lower wind speed limit. The torque/speed characteristics of each propeller are determined such that the working point begins to move towards the areas of low aerodynamic efficiency when the wind speed approaches the value at which the generator reaches the maximum, safety-compliant power. The inventive wind generator is characterised in that it also comprises: at least one centrifugal counter weight system (24) which is arranged such as to reduce the pitch of at least one part of the blades when the speed of rotation is increasing; and at least one system comprising an end stop (30) and return (15) or compression (25) means which mechanically define the initial working pitch and the optimum working pitch up to the nominal speed. According to the invention, one part of the blades is pivot mounted to a shaft (23), thereby driving the end of at least one return spring (15) or compression spring (25) by means of at least one arm or lever (22) or similar device, said end maintaining the blade in contact with at least one fixed end stop element (30) defining the initial pitch.

[Suite sur la page suivante]

WO 2004/061301 A1

ABSTRACT

The invention relates to a wind generator of the type with automatic power regulation, comprising at least one propeller having at least two blades (21), whereby the efficiency of one propeller varies inversely to a variation in the wind energy, from a lower wind speed limit. The torque/speed characteristics of each propeller are determined such that the working point begins to move towards the areas of low aerodynamic efficiency when the wind speed approaches the value at which the generator reaches the maximum, safety-compliant power. The inventive wind generator is characterized in that it also comprises: at least one centrifugal counter weight system (24) which is arranged such as to reduce the pitch of at least one part of the blades when the speed of rotation is increasing; and at least one system comprising an end stop (30) and return (15) or compression (25) means which mechanically define the initial working pitch and the optimum working pitch up to the nominal speed. According to the invention, one part of the blades is pivot mounted to a shaft (23), thereby driving the end of at least one return spring (15) or compression spring (25) by means of at least one arm or lever (22) or similar device, said end maintaining the blade in contact with at least one fixed end stop element (30) defining the initial pitch.